

Serial No. 10/714,767

Dkt.: P0011092US

Filing Date: November 17, 2003

Title: IMPLANTABLE HEART VALVE PROSTHETIC DEVICES HAVING INTRINSICALLY CONDUCTIVE POLYMERS

REMARKS

Reconsideration and withdrawal of the rejections of the claims, in view of the remarks presented herein, is respectfully requested.

Claims 1 and 20 are amended, claims 7-19, 21, 23-25 and 27-43 are cancelled, and claims 4, and 44 are withdrawn from consideration. The pending claims are claims 1-6, 20, 22, 26 and 44-56. Support for the amendment to claims 1 and 20 is found in the specification, for example, at page 7, lines 3-6. The amendment to claim 54 is to correct a minor typographical error. The amendments to the specification, in the paragraphs from the published application, are to correct minor typographical errors. The amendment to claims 1 and 23 is submitted to place these claims in better shape for allowance or for appeal. No new subject matter has been added by way of these amendments.

It is respectfully submitted that upon allowance of generic claims 1 and/or 20, Applicants are entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR § 1.141. M.P.E.P. § 809.02. Therefore, the Examiner is respectfully requested to reconsider the withdrawal of claims 4 and 44, and consider allowance of dependent claims 45-56.

Support for the amendment “the intrinsically conductive polymer is conductive without a metallic filler or coating” is found in the applicants’ specification at page 7, lines 3-6, where the “intrinsically conductive polymers” are defined as “polymers that are conductive *without requiring non-polymeric conductive fillers or coatings, such as metallic filler or coatings.*”

The specification clearly indicates that the using a metallic filling or coating is optional and not required. Therefore, the amendments reciting that the intrinsically conductive polymer is conductive without a metallic filler or coating is supported by the specification as filed. No new subject matter is added.

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Examiner Interview

Applicants thank Examiner Stewart for his courtesy during the interview with Applicants' attorney William F. Prout, on September 23, 2009. The new Office Action and status of the specification and claims were discussed. In addition, a proposed amendment to claims 1 and 20 replacing the claim language "is free of" with "is conductive without" was discussed. The Examiner agreed that the new limitation to claims 1 and 20 was proper.

The above account is believed to be a complete and accurate summary of the telephonic interview as required by 37 C.F.R. § 1.133. If the Examiner believes that this summary is inaccurate or incomplete, Applicants respectfully request that the Examiner point out any deficiencies in his next communication so that Applicants can amend or supplement the interview summary.

THE 35 U.S.C. § 102(B) REJECTION

The Examiner rejected claims 1, 2, 5, 6, 20, 22 and 26 under 35 U.S.C. § 102(b) as being anticipated by Ogle *et al.* (U.S. Patent No. 6,190,407). This rejection is respectfully traversed.

As amended, the claims are directed to an implantable heart valve sewing prosthesis comprising a ring shaped body having a blood contacting external surface including an intrinsically conductive polymer having a resistivity of less than about 2000 ohms per square, wherein the intrinsically conductive polymer is conductive without a metallic filler or coating; and to an annuloplasty prosthesis for implanting in a heart valve annulus in a patient, the annuloplasty prosthesis comprising a ring shaped body comprising a blood contacting external surface comprising an intrinsically conductive polymer, wherein the intrinsically conductive polymer is conductive without a metallic filler or coating.

The standard for anticipation is one of strict identity, and to anticipate a claim for a patent a single prior art source must contain all its elements. Hybritech Inc. v. Monoclonal-Antibodies, 231 USPQ2d 90 (Fed. Cir. 1986); In re Dillon, 16 USPQ2d

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1987 (Fed. Cir. 1990). Furthermore, there must be no difference between the claimed invention and the disclosure, as viewed by a person of ordinary skill in the art. Scripps Clinic & Res. Found. v. Genentech, Inc., 18 USPQ2d 101 (Fed. Cir. 1991).

Independent claims 1 and 20 are amended to recite that the intrinsically conductive polymer is conductive without a metallic filler or coating. The cited document, U.S. patent no. 6,190,407 B1 (Ogle *et al.*), discloses a medical article having an tissue-contacting surface coated, at least in part, with an antimicrobial metal in order to reduce the "very serious and even life threatening" risk of infection following implantation, such as prosthetic valve endocarditis (PVE) (see, *e.g.*, abstract; column 1, lines 33-34; column 2, line 40 – column 4, line 7; and column 4, lines 29 – column 5, line 5). The Ogle *et al.* disclosure requires a metallic coating or filler. Thus, the claimed invention without a metallic filler or coating is not anticipated by Ogle *et al.*

The 35 U.S.C. § 103(a) REJECTION

The Examiner rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Ogle *et al.* in view of Carpentier *et al.* (U.S. Patent No. 4,055,861). In particular, the Examiner asserts it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the medical articles of Ogle *et al.* with the semiannular ring of Carpentier *et al.* To the extent that this rejection may be maintained with respect to the pending claims, it is respectfully traversed.

Carpentier *et al.* do not remedy the deficiencies of Ogle *et al.* Carpentier *et al.* disclose a support for a natural human heart valve that consists of an annular or part annular semi-rigid frame, which frame can be covered by a textile sheath (abstract). Carpentier *et al.* disclose that the device can be made of polyesters such as poly(ethylene terephthalate) or poly (glycol terephthalate), polyamides such as nylon 6--6, nylon 11 or nylon 12, polyolefins, polypropylene, fluorinated polymers such as polytetrafluoroethylene, or polyvinyl chloride (column 3, lines 39-45). Carpentier *et al.* further disclose that the textile sheath can be (i) produced from a woven fabric, *e.g.*, a napped fabric or a cut velour; (ii) a knitted or braided sleeve; or (iii) made of a non-woven fabric (column 3,

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lines 15-1 8). However, there is nothing in Carpentier *et al.* that teaches or suggests an implantable heart valve sewing prosthesis comprising a ring shaped body having an external surface including an intrinsically conductive polymer having a resistivity of less than about 2000 ohms per square, wherein the intrinsically conductive polymer is conductive without a metallic filler or coating; or an annuloplasty prosthesis for implanting in a heart valve annulus in a patient, the annuloplasty prosthesis comprising a ring shaped body comprising an intrinsically conductive polymer, wherein the intrinsically conductive polymer is conductive without a metallic filler or coating. Therefore, the pending claims are not obvious in view of Carpentier *et al.*

It is respectfully submitted that prima facie obviousness has not been established. As discussed above, neither Ogle *et al.* nor Carpentier *et al.*, either alone or in combination, disclose or suggest Applicants' claimed invention. Therefore, one of ordinary skill in the art would not be motivated to combine the teachings of the cited art so as to arrive at the presently claimed invention. Hence, the claims of the present invention are distinct from the cited art. Withdrawal of the 35 U.S.C. § 103(a) rejection of the claims is therefore proper and respectfully requested.

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CONCLUSION

Applicants' respectfully submit that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney (612-670-5308) to facilitate prosecution of this application.

Respectfully submitted on behalf of
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